

REMARKS

In the Office Action, claims 1-9 and 13-24 were rejected. By this Response, Applicants have amended the claims 1, 7, 9, 13 and 21. In view of the following remarks, Applicants respectfully request reconsideration and allowance of all pending claims.

Objection to the Drawings

The Examiner objected to the drawings, indicating that handwriting on Figure 8 should be removed. Applicants do not see handwriting on the version of the Figures in the files. However, to expedite prosecution, a clean copy of Figure 8 is submitted with this response.

Rejection Under 35 U.S.C. § 102

In the Office Action, claims 13 and 18 were rejected under 35 U.S.C. § 102(b) as being anticipated by the Miller reference (U.S. Patent No. 3,022,368; hereinafter "Miller").

Legal Precedent

A *prima facie* case of anticipation under 35 U.S.C. § 102 requires a showing that each limitation of a claim is found in a single reference, practice or device. *In re Donohue*, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985).

Omitted Features of Independent Claim 13

Turning now to claim 13, this claim recites "a flexible tube configured to be *wrapped* around a workpiece to *inductively heat* the workpiece during operation and configured to *receive power* to inductively heat this workpiece through the flexible tube." (emphasis added). In contrast, Miller teaches a cable configured to provide power to a heating tool (i.e., an uninsulated and uncooled induction heating tool). However, the cable disclosed by Miller is *not* configured to be wrapped around a workpiece for inductive heating purposes. On the contrary, Miller specifically indicates that "[t]his

invention relates to coaxial cables and is particularly directed to a flexible cable assembly for *connecting an induction heater to a remote induction heating tool.*" Miller, col. 1, lines 7-10 (emphasis added). Hence, Miller relies on a separate *uncooled* inductive heating tool and *not* on a cable for inductive heating. Further, Miller expressly provides "a flexible coaxial cable capable of *carrying a substantial amount of energy.*" Miller, col. 1, lines 27-29. Thus, the main purpose of the cable, as taught by Miller, is to deliver energy for an inductive heater. This is in contrast to a fluid cooled tube and conductor that are wrapped around a workpiece as recited in claim 13.

In view of these deficiencies, the cited reference cannot anticipate claim 13. Additionally claim 18 depends from claim 13. Accordingly, Applicants respectfully contend that claim 18 is allowable based on its dependency from an allowable independent claim.

Rejection Under 35 U.S.C. § 103

In the Office Action, claims 1-9, and 13-24 were rejected under 35 U.S.C. § 103(a) as obvious over Miller, in view of Moesta (U.S. Patent No. 1,548,204; hereinafter "Moesta") and further in view of other secondary references.

Applicants, however, respectfully assert that the cited references do not support a *prima facie* case of obviousness, as is required by Section 103. The Examiner bears the burden of establishing a *prima facie* case of obviousness. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). To establish a *prima facie* case, the Examiner must not only show that the combination or modification includes *all* of the claimed elements, but also a convincing line of reasoning as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *See Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). Moreover, obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the

combination or modification. *See ACS Hospital Systems, Inc. v. Montefiore Hospital*, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). Indeed, the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *See In re Mills*, 16 U.S.P.Q.2d. 1430 (Fed. Cir. 1990).

The Federal Circuit has consistently held that a reference that teaches away from the claimed invention cannot serve to create a *prima facie* case of obviousness. *See In re Gurley*, 31 U.S.P.Q.2d 1130, 1132 (Fed. Cir. 1994) (noting that it is a useful general rule that “a reference that ‘teaches away’ can not [*sic*] serve to create a *prima facie* case of obviousness”). Moreover, a reference must be considered in its entirety, including portions that would lead away from the claimed invention. *See* M.P.E.P. § 2142.02. Indeed, “[i]t is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it that will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art.” *In re Wesslau*, 147 U.S.P.Q. 391, 393 (C.C.P.A. 1965).

Additionally, Applicants respectfully submit the Examiner must provide objective evidence, rather than subjective belief and unknown authority, of the requisite motivation or suggestion to combine or modify the cited references. *See In re Lee*, 61 U.S.P.Q.2d. 1430 (Fed. Cir. 2002). Moreover, when prior art references require a selected combination or modification to render obvious a subsequent invention, there must be some reason for the combination or modification other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination or modification. *See Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988). Indeed, the Federal Circuit has warned that the Examiner must not “fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.” *See In re Dembiczak* 50 U.S.P.Q. 2d 52 (Fed. Cir.1999). (quoting *W.L. Gore &*

Assoc., Inc. v. Garlock, Inc., 220 U.S.P.Q. 303, 313 (Fed. Cir.1983)). Moreover, avoiding hindsight reconstruction is especially important regarding less technologically complex inventions, where the very ease which the invention can be understood may prompt one employ such hindsight. *See id.*

In determining the differences between the prior art and the claims, the question under Section 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *See Stratoflex, Inc. v. Aeroquip Corp.*, 218 U.S.P.Q. 871 (Fed. Cir. 1983). Thus, the Examiner must not look at each element of a claim individually, but rather the claims should be viewed as a tapestry comprising the recited elements. “It is impermissible, however, to simply engage in a hindsight reconstruction of the claimed invention, using the applicant’s structure as a template and selecting elements from references to fill the gaps.” *In re Gorman*, 18 U.S.P.Q. 2d 1885, 1888 (Fed. Cir. 1991) (emphasis added). Simply put, what may seem logical to combine in retrospect and after viewing an applicant’s invention is not obvious unless the cited references, without benefit of this hindsight, teach what is claimed. *See In re Zurko*, 42 U.S.P.Q.2d 1476, 1479 (stating “[w]hile in retrospect, looking at applicants’ invention, it might seem logical to perform a repeat-back in the UNIX system over a trusted line, neither UNIX nor FILER2 teaches communications with the user of a trusted pathway,” as is recited in the claim in question).

Omitted Features of Independent Claims 1 and 9

Independent claims 1 and 9 recite a litz wire disposed within a hollow interior of cable and/ or an extension to a cable, wherein “the cable is being configured to be *wrapped around* a workpiece to inductively heat the workpiece during operation.” (emphasis added). In contrast, the cable taught by Moesta is directed toward a portable welding machine. Particularly, Moesta discloses a cable that is in “connection with a conductor of a movable electrode.” Moesta, col. 1, lines 32-33. Further, Moesta merely provides that “[s]uch a cable and its flexible water cooling jacket will permit of a

movable electrode being freely manipulated relative to a piece of work.” Moesta, col. 1, lines 47-50. Thus, the cable taught by Moesta is used as a conductor for a welding machine, facilitating convenient portable operation. As discussed above, Miller does not teach a liquid cooled cable of any sort that is configured to be wrapped around a workpiece. Thus, both Moesta and Miller fail to suggest that the cable used as a conductor is intended to be wrapped around a workpiece for inductive heating, as recited in claims 1 and 9.

Miller and Haldeman cannot be combined as applied to claims 1 and 9

Haldeman discloses a litz cable 10 which is a cable-like conductor for carrying current. *See*, Haldeman, Fig. 5. In contrast, Miller discloses a coaxial cable 35 comprising respective first and second concentric tubular wires 44 and 45 with a flexible concentric tube 40 disposed between them for fluid passage. Miller, col. 2, lines 48-63. Accordingly, Haldeman requires one conductor, while Miller requires two conductors in a coaxial configuration for carrying current and a cooling medium between them. Hence, the two configurations disclosed by Haldeman and Miller are functionally and structurally distinct. More critically, there is no apparent teaching in the references for any practical way to render the litz cable of Haldeman hollow so as to permit its use in the arrangement of Miller. Absent some such teaching or at the very least some likelihood of success of the proposed combination, the rejection cannot stand.

Omitted Features of Independent Claim 7, 13 and 21

Independent claims 7, 13, and 21 recite a cable, a tube or a conductor “configured to be *wrapped around* a workpiece to inductively heat the workpiece during operation.” (emphasis added). As mentioned above with regard to the rejection of claim 13 under Section 102 and the rejection of claim 1 and 9 under Section 103, neither Miller nor Moesta discloses a cable configured to be wrapped around a workpiece for inductive heating. The cables disclosed by Miller and Moesta are solely intended for delivering power to a heating device and/or to a welding machine. Independent claims 13 and 21

further recite the cable is “configured to receive *power to inductively heat* the workpiece through the flexible tube.” (emphasis added). Thus, the claims require utilizing the power delivered to the cable for inductive heating. However, again, Miller and Moesta merely teach a cable providing means for delivering power, and no disclosure in these references suggests that the power dissipated by the cables is appropriate or even capable of being used for inductive heating applications.

In view of these deficiencies, the cited references, taken alone or in combination, cannot support a *prima facie* obviousness rejection of independent claims 1, 7, 9, 13, and 21.


Additionally, claims 2-6, 14-20 and 22-24 each depend from one of independent claims 1, 7, 9, 13, and 21. Applicants respectfully contend that these claims are allowable based on their dependency from an allowable independent claim, as well as for the subject matter separately recited by each of these dependant claims. Applicants, therefore, also respectfully request allowance of these dependant claims. For these reasons, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 103 and allowance of these claims.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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